

-1- (JAPIO)

ACCESSION NUMBER

86-010861

TITLE

ALKALINE ZINC BATTERY

PATENT APPLICANT

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APPLICATION DETAILS

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SOURCE

86.05.31 SECT. E, SECTION NO. 408; VOL. 10, NO. 150,

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INT'L PATENT CLASS

H01M-004/42; H01M-004/12

JAPIO CLASS

42.9 (ELECTRONICS--Other)

ABSTRACT

PURPOSE: To reduce the generation of hydrogen gas within an alkaline zinc storage battery to improve the characteristic of storage by using low amalgamated or unamalgamated zinc alloy powder which contains lead and specific metallic elements and is specified with a bulk specific gravity, as active material for a negative pole.

CONSTITUTION: In an alkaline battery, low amalgamated or unamalgamated zinc alloy powder which contains Pb and 3-5 metallic elements in the weight % of 0.01-0.5 belonging to the groups of I b, IIb, IIIb, IVb, Vb, and has an amalgamation rate under 2wt% and a bulk specific gravity of 3.5g.cm<sup>-3</sup>, is used as active material for a negative pole. Preferably, the average shaping index of the alloy powder is set to be under about 1.8. According to the alkaline battery, it is possible to restrain the generation of hydrogen gas within a battery in the same degree as a battery, in which zinc powder with a high amalgamation rate is used in the conventional manner. Further, it is possible to increase the volume of the active material in the same volume of the negative pole and improve the characteristic of rapid discharging in low temperatures.